UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/507,004	02/22/2000	Stefanos Manganaris	RSW9-99-148	2371

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EXAMINER
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ART UNIT	PAPER NUMBER
3623	

DATE MAILED: 06/04/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 07-01)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _2/7/03_ .

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
    closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-15_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1-15_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

    If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____ .

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
        application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

    a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)   4)☐ Interview Summary (PTO-413) Paper No(s). _____ .

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)   5)☐ Notice of Informal Patent Application (PTO-152)

3)☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .   6)☐ Other: .

Detailed Action

This is Final Office Action in response to the communication received on

February 7, 2003. Claims 1-15 are pending.

Claim Rejections - 35 USC § 103

1.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

2.   Claims 1-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Chen et al. (U.S. P.N. 6,377,934) in view of Jacobi et al. (U.S. P.N. 6,317,722).

As per claims 1, 6 and 11, Chen et al. disclose a computer-implemented method,

a computer program product recorded on a computer readable medium, and a system

of processing market research data including aggregate sales data concerning items

grouped in a plurality of market baskets and sold during retail sales transactions of a

retailer, said method comprising the steps of (see column 3, lines 47-50):

Receiving analysis parameters from said retailer for use in analyzing said market

research data (see column 2, lines 14-25, analysis parameters are received for

analyzing the enterprise data);

Receiving said aggregate sales data (see column 2, lines 40-45, aggregate data

is received); and

Analyzing said aggregate sales data based on said market basket groupings and

determining if any of said market basket groupings display characteristics identified by

said analysis parameters (see column 2, lines 51-63, and column 5, lines 51-61, the

data is analyzed based upon characteristics).

Chen et al. does not explicitly disclose that for all market basket groupings which

have been determined to display said characteristics, enhancing said aggregate sales

data concerning each market basket grouping by embedding in said aggregate sales

data an "imaginary item" for each characteristic(s) displayed by each market basket

grouping. However, Jacobi et al. discloses using a persons' shopping cart items to

suggest or recommend another item to them (see column 4, lines 1-16, and column 6,

lines 7-30, and 52-60). Jacobi et al. determines what items to recommend by using

past consumer records and tables that show market basket groupings (see column 9,

lines 59-67, through column 10, lines 1-10). Jacobi et al.'s internal system is using the

aggregate sales data with an "imaginary item" and determining if this item will correlate

with the other items in shopping cart. If the "imaginary item" does highly correlate with

the other items in the basket, then it is recommended or suggested to the shopper.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the

invention to create an "imaginary item" with each set of aggregate data in the market

basket at it would allow Chen et al. to perform more data analysis and further fit

individual shopper's needs. One would be motivated to have Chen et al. contain an

"imaginary item" as it allows one to further determine correlating data and place the

various users in accurate groupings to increase sales.

As per claims 2, 7, and 12, Chen et al. disclose all the limitations of claim 1, wherein said method further comprises the steps of:

Performing associating analysis on said enhanced market basket grouping data to generate association rules and frequently itemsets (see column 5, lines 62-67, through column 6, lines 1-122, association analysis is performed generating rules and itemsets); and

Displaying and archiving said association rules and frequent itemsets (see column 5, lines 64-66, the customer analysis functions are rules and can be displayed and archived).

As per claims 3, 8, and 13, Chen et al. disclose all the limitations of the method set forth in claim 2, further comprising the step of: processing said association rules and frequent itemsets to develop conclusions about said marketing research data (see column 3, lines 51-67, the rules and functions of the itemsets are used to develop conclusions about the marketing research data).

As per claim 4, 9, and 14, Chen et al. disclose all the limitations of the method as set forth in claim 2, wherein said aggregate sales data comprises merchandise information, said merchandise information including:

As identification element identifying each sold item (see figure 4B, column 9, lines 52-63, the data contains information about the sold items);

Transactional information corresponding to each sold item (see figure 4B, column 9, lines 52-63, the data contains information about the transactions and billing information of each item); and

Financial information corresponding to each sold item and wherein said merchandise information is input to a merchandise taxonomy to establish logical links between said identification elements, said transactional information, and said financial information so that said merchandise information can be utilized for market basket analysis (see figure 4B, and column 9, lines 64-67, through column 10, lines 1-9, sales information is associated with the elements and can be utilized for analysis).

As per claim 5, 10, and 15, Chen et al. disclose all the limitations of the method as set forth in claim 4, wherein said aggregate sales data comprises information linking the merchandise information of each sold item in a particular market basket to all other items in said particular market basket (see figure 4B, column 9, lines 52-63, the data contains information about the sold items and this information is linked together in the data model).

Response to Arguments

3.   The applicant argues that neither the prior art references (Chen or Jacobi), either

alone, or in combination, teach or suggest the claimed invention. The applicant states

that Jacobi does not teach the embedding of the imaginary item in the aggregate sales

data for market basket groupings. The applicant also argues that Jacobi does not teach

imaginary items in the specification. Lastly, the applicant states that nowhere in Jacobi

is there a suggestion of embedding data in the market basket so that it will possess data

indicating theses characteristics, which data is then used by analysts to identify items

that might be desired by particular groupings of purchasers.

       The examiner agrees that Chen does not teach embedding imaginary items in

sales data. However, Jacobi <u>does</u> teach embedding of the imaginary item in the

aggregate sales data for market basket groupings. Applicant defined an "imaginary

item" as "a designation indicating the existence of a <u>property</u> of the basket as a whole".

The applicant further explains on page 2 in the response on Jan. 30, 2003, that the

"imaginary item" designation is "added to the basket to enable identification of the

property". In the Jacobi application, an imaginary item is used. Although Jacobi does

not call it an imaginary item, Jacobi designates a property to the basket as a

whole. As disclosed in the abstract and column 4, lines 1-16, and column 6, lines 7-30,

and 52-60. Jacobi uses the items in the shopping cart to create a list of items the user

could be interested in and then determine "whether that item is related to one or more of

the items in the user's shopping cart". Therefore, Jacobi inherently uses an imaginary

item to categorize the property of the basket and determine if the items in the basket correspond to any of the items on the list.

For example, Jacobi discloses a shopping basket and this basket could be filled with 5 books and 3 of the books are about England (see column 3, lines 39-56). Jacobi then would use this characteristic, or imaginary item, of the basket as a whole to create a list with other books about England and recommend them to the user. The applicant is claiming the same thing in the last part of claim 1. The applicant discloses that for all market basket groupings which have been determined to display the characteristics (books about England), enhancing the aggregate sales data concerning each market basket grouping by embedding in the aggregate sales data an "imaginary item". Therefore, in the applicant's invention the "imaginary item" would be the property of the basket, which in this example, is a book about England.

4.   The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure.

     Wrinblatt (U.S. P.N. 5,515,270) discusses a system and method for analyzing

purchasing data.

Conclusion

5.   No claims allowed.

6.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time

policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the mailing date of this final action.

7.   Any inquiry concerning this communication or earlier communications from the
examiner should be directed to **Rebecca Bachner** whose telephone number is 703-
305-1872. The examiner can normally be reached on Monday - Friday from 8:30am to
5:00pm. If attempts to reach the examiner by telephone are unsuccessful, the
examiner's supervisor, **Tariq Hafiz** can be reached on **(703) 305-9643**.

Any inquiry of a general nature or relating to the status of this application or
proceeding should be directed to the **Receptionist** whose telephone number is
(703) 308-1113.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington D.C. 20231

or faxed to:

(703) 305-7687   Official communications; including After Final

communications labeled "Box AF"

(703) 746-7306   Informal/Draft communications, labeled "PROPOSED" or "

DRAFT"

Hand delivered responses should be brought to Crystal Park 5, 2451 Crystal

Drive, Arlington, VA, 7th floor receptionist.

RMB
May 30, 2003

TARIQ R. HAFIZ
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TECHNOLOGY CENTER 3600